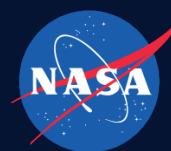


# Ultra Low Temperature Batteries (ULTB) Project

Game Changing Development Program | Space Technology Mission Directorate (STMD)



## ANTICIPATED BENEFITS

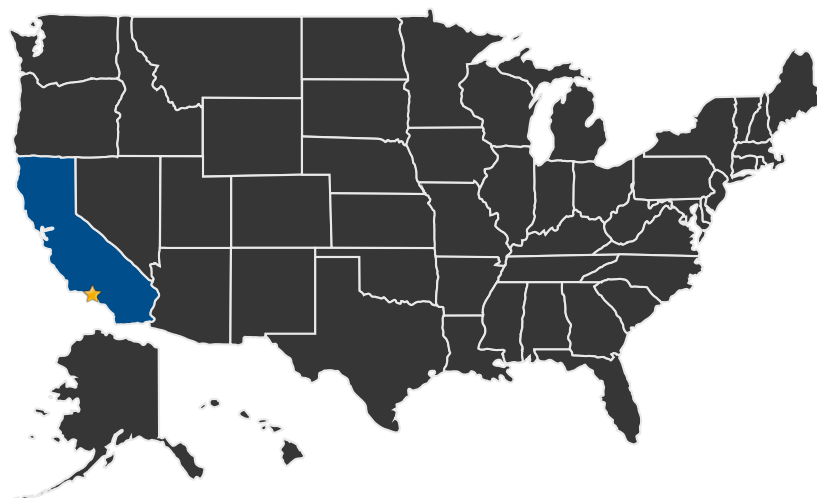
### To NASA funded missions:

This technology is required by the current Europa Lander baseline mission. The benefits of the improved specific energy and low temperature operation enable a mission to be executed to meet a minimum set of science requirements.

## DETAILED DESCRIPTION

Develop low temperature batteries that enable an extended Europa Lander Mission architecture: Enable and increase the landed mission lifetime (relative to commercially available primary batteries) allowing science operations to proceed until an additional Europa Orbiter pass, Reduces the mass and power consumption to enable an additional science instrument and operations, Greatly enhances power margins, mass margins, and lifetime of the baseline mission

## U.S. WORK LOCATIONS AND KEY PARTNERS



■ U.S. States  
With Work

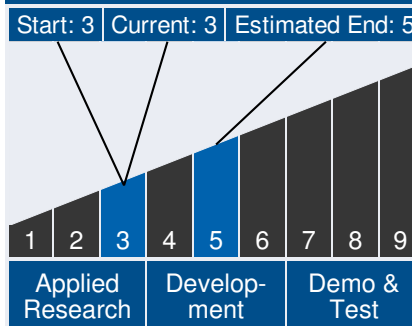
★ Lead Center:  
Jet Propulsion Laboratory



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## Technology Maturity



## Management Team

### Program Executive:

- Lanetra Tate

### Program Manager:

- Mary Wusk

### Project Manager:

- Thomas Cwik

Active Project (2015 - 2018)

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## Technology Areas

### Primary Technology Area:

Space Power and Energy  
Storage (TA 3)

## DETAILS FOR TECHNOLOGY 1

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